## **Case Study**

# Nursing Acute Pain in Patients With Bladder Cancer: A Case Study

Frans Zizka Hervira<sup>1</sup>

<sup>1</sup> Student of Diploma Nusing Program STIKES RS Baptis Kediri, Panjaitan Street 3B, Kediri City, East Java, Indonesia

#### ARTICLE INFO

#### **ABSTRACT**

Article History:

Submit : May 7, 2022 Revised : Nov 6, 2022 Accepted : Dec 18, 2022

Keywords:

Acute Pain, Bladder cancer, Nursing Care **Background:** Severe pain in the lower right abdomen is often found in bladder cancer patients. Bladder cancer is a complex disease associated with high morbidity and mortality if not treated optimally. Patients who suffer from bladder problems say that the influence of medical personnel influences the most significant role in pain control. Nursing care for acute pain in patients with bladder cancer is still unknown. This study aims to describe nursing care for acute pain in bladder cancer patients.

**Methods:** This research uses a case study design. Data collection from assessment to nursing evaluation was carried out in the Punai room of the Simpang Lima Gumul Hospital, Kediri Regency, in December 2021. The bladder patient was observed or treated for at least two days. Data collection techniques used were interviews, observation, and documentation. Data analysis was carried out using narrative analysis. **Results:** Mr. R, the main complaint felt by the patient is a pain in the lower right abdomen penetrating to the back. The nursing diagnosis in the case of Mr. R is the actual diagnosis of acute pain associated with physical injury (D.0077). Nursing intervention for Mr. R was compiled based on the diagnosis of acute pain using pharmacological techniques. **Conclusion:** The nursing problems Mr. R resolved after 48 hours of nursing intervention. The patient shows a decreased pain level with a pain scale of 2, and the patient plans KRS after 2 days the problem is resolved.

**a** Corresponding Author

Affiliation

🖄 Email

"Cite this as

Frans Zizka Hervira

: Student of Diploma Nusing Program STIKES RS Baptis Kediri, Panjaitan Street 3B, Kediri City, East Java, Indonesia

: hervirafranszizka@gmail.com

: Hervira, F. Z. (2022). Nursing Acute Pain in Patients With Bladder Cancer: A Case Study. Journal of Applied Nursing and Health, 4(2), 158–163.

https://doi.org/10.55018/janh.v4i2.42

#### Introduction

Cancerbladder is a prevalent disease associated with substantial morbidity, mortality, and costs. Environmental or occupational exposure to carcinogens, especially tobacco, is a significant risk factor for bladder cancer (Sanli et al., 2017; Zupančič, 2021). In much of the world, smoking and chemical exposure are major risk factors for bladder cancer (Grayson,

2017). Cancerbladder is Cancer characterized by total hematuria without pain and intermittent. In infiltrative carcinomas, it is not uncommon to show symptoms of bladder irritation such as dysuria, pollakiuria, frequency, and urgency, and they are also familiar with complaints of retention by blood clots

This is an open access article under the CC BY-SA lisense (Creative Commons Attribution-Share Alike 4.0 International License)





## (Basuki B Purnomo, 2011; Krajewski et al., 2018).

According to the WHO (World Health Organization), in 2013, cancer incidence increased from 12.7 million cases in 2008 to 14.1 million in 2012. Meanwhile, deaths increased from 7.6 million in 2008 to 8.2 million in 2012. Cancer is the number 2 cause of death worldwide by 13% after cardiovascular disease. (WHO in Basuki B Purnomo, 2011) According to the 2013 Basic Health Research (Riskesdas) data, the prevalence of tumors/Cancer in Indonesia is 1.4 per 1000 population or about 330,000 people. Based on data from GLOBOCAN, 2018, lung cancer ranks first in the number of new cases of 2,094 million worldwide, followed by breast, colorectal, prostate, and gastric Cancer (Koch et al., 2021; Pangribowol Supriyono, 2019). Worldwide, bladder stones account for 3% of all malignant tumors. In the United States, an estimated 74,000 new cases of bladder cancer and 16,000 deaths occur each year (Silverman et al., 2017). Cancerbladder often occurs in adults aged 50 and over. Now the fourth most common cancer in men and the tenth in women, this Cancer attacks white people twice as often as black people (Basuki B Purnomo, 2011; Cadiou et 2019). Meanwhile, according (Saginala et al., 2020), 90% of bladder cancer diagnoses are made in those aged 55 years and over, and the disease is four times more common in men than women.

Clinical manifestations of bladder disease can vary, namely the presence of hematuria, urinary tract infection, urgency, pelvic pain, or back pain dvsuria. (Baughman & Hackley, 2000). Meanwhile, according to (Clark et al., 2013; León-Mata et al., 2018), clinical manifestations that may appear in patients with bladder or bladder cancer include hematuria. frequency of urination due to irritation or decreased bladder capacity, urinary tract

infection, and pain in the lesion (Bochenek et al., 2019; Kulkarni et al., 2019; Raskolnikov et al., 2019). The diagnosis of bladder patients is based on urinalysis tests, CT scans, and complete blood counts. In the urine sample of a bladder patient, it will be found the presence of Cancer cells and abnormalities in the characteristics of the urine sample, such as hematuria. A CT scan will reveal physical evidence and a specific location of bladder abnormalities. Complete blood examination in patients with bladder will find signs of severe dehydration seen from abnormal hemoglobin and hematocrit levels. An initial survey conducted at a government hospital in Kediri showed that bladder cancer patients experienced right lower abdominal pain penetrating to the back. Symptoms of pain arise due to urinary tract obstruction resulting in bladder irritability until lesions occur to hematuria. This hematuria will stimulate pain in bladder patients. So far, the nursing care for acute pain in bladder patients is still unknown.

#### Methods

This research uses a case study design. A case study is a series of scientific activities carried out intensively, in detail, and in-depth about a program, event, and activity, either at the individual level or by a group people, institutions, organizations to gain in-depth knowledge about the event (Raharjo, 2017). Data collection from assessment to nursing evaluation was carried out in the Punai room of Simpang Lima Gumul Hospital, Kediri Regency, in December 2021. The bladder patient was observed or treated for at least two days. The participant in this study was a bladder patient with acute pain who met the following criteria: male patient



18-80 years old and cooperative. If the patient has gone home two days before, replacing another patient with the exact case necessary—data collection techniques using interviews, observation, and documentation. Data analysis was carried out using narrative analysis. In conducting this study, the researchers were guided by ethical principles by providing informed consent and maintaining the confidentiality of patient data. Research has obtained Ethical Clearance.

### Results

Mr. R, a farmer, age 71 years, comes to the emergency department with right lower abdominal pain that radiates to the back. The pain is stabbing, continuous, and increases with activity. The pain has been felt since 3 days ago with a pain scale of 3. His vital signs are as follows: blood pressure 140/78 mmHg, pulse 79 times/minute, breathing 20 times/minute, temperature 36.6°C. Compos mentis consciousness. The patient was immediately admitted to the ward for further treatment. Medical history Mr. R stated that the patient had never been hospitalized. The patient and his family had no history of bleeding urine, history of chronic disease, surgery, or allergies. The patient also said that he was an active smoker.

The anamnesis of the patient's elimination pattern showed that the patient had a urinary catheter of 200 cc/12 hours with a reddish-yellow color, characteristic odor, and liquid consistency. Physical examination of the abdominal area revealed distension in the hypogastric region, and bowel sounds 11 times/minute, tenderness in the hypogastric region. Physical examination of other body parts within normal limits. Laboratory results Mr.

R and normal ranges are as follows: Hemoglobin 12 g/dL (13-18)gr/dL). Erythrocytes 3860000 (4300000-6000000), Hematocrit 32, 8% (45-50%), random blood sugar (GDA) 168 g/dL (70-140 g/dL), Chloride 95.79 mmol/L (98-108 mmol/L), and the results of Urological Ultrasound showed a bladder suspected of being malignant.

Mr medicine. R includes PZ 10 TPM infusion, Ondansetron injection 4 mg twice a day, Ceftriaxone injection twice 1 gram, Antrain three times 1 gram, PO Tranex Acid 3 times 500 mg. The nursing diagnosis based on the Indonesian Nursing Diagnosis Standard is acute pain (D.0077) associated with a physical injury agent, which is characterized by (PPNI, 2019): Subjective data: the patient complained of intermittent bloody urine accompanied by pain in the abdomen until it penetrated the back. Pain scale 3. Pain is like stabbing. Pain is felt continuously. Pain increases when moving, and pain decreases when resting. Objective data: the patient wakes up at night because of pain and difficulty returning to sleep, does not spend 1 portion of food, has a pulse of 79 beats/minute, has a blood pressure of 140/78 mmHg, and is grinning in pain.

Nursing goals and outcomes: after 48 hours of nursing intervention, the patient will show a decrease in pain level (L. 08066) with the following criteria: the ability to complete activities, reduced pain complaints, difficulty sleeping, pulse frequency, blood pressure, appetite (PPNI, 2019). Nursing interventions: management (I. 08238), which includes identification of the location. characteristics, duration, frequency, quality, and intensity of pain; identification of pain scale; considering the type and source of pain in selecting a pain relief strategy; recommend proper use of analgesics; collaborative analgesic administration, if necessary (PPNI, 2019). Implementation of



nursing that the planned intervention has carried out. A formative evaluation was carried out on every single intervention, and a summative evaluation was carried out at the end of each shift assignment. After 48 hours of nursing intervention, the patient showed no complaints of pain because he was still under the influence of the drug, pulse rate was 71 times/minute, blood pressure was 120/84 mmHg, and the patient was planning KRS after 96 hours of nursing intervention.

## **Discussion**

This study aims to describe nursing care for acute pain in bladder patients. Based on the nursing assessment in this study, the patient was 71 years old and included in the category of elderly adults. This is based on previous research, which states that bladder cancer often occurs in adults aged 50 and over (Riskesdas in Basuki B Purnomo, 2011). The main complaint of patients in this study was pain in the lower right abdomen until it penetrated the back. In addition, based on the results of the physical examination of the abdominal area, there was distension in the hypogastric region, bowel sounds 11 times/minute, and tenderness in the hypogastric region. On a urological ultrasound examination, a bladder mass was found, which was suspected to be malignant. As well as the results of anamnesis of the patient's elimination pattern, it was found that the patient had a urinary catheter in the amount of 200 cc/12 hours with a reddish yellow color, characteristic odor, and liquid consistency. history of smoking, carcinogenic substances, urinary tract infections, and schistosomiasis will cause cell inflammation metabolism that supports the carcinogens. In addition, advanced age and male patients are risk factors for bladder

cavities (Gao et al., 2021; Lenis et al., 2020). Carcinogen metabolism will mutations in Cancer cells until Cancerbladder is formed. The presence of Cancer in the bladder will cause urinary tract obstruction and bladder irritability which causes lesions in the bladder. This lesion on the bladder will be the cause of hematuria which will stimulate pain in the patient. The investigative data concurred with the description of hematuria and physical injuring agent. The appropriate diagnosis between the literature review and case review at the time of the assessment only found data that matched the conditions experienced by the patient at the time of the assessment and after the assessment. The complaints felt by the patient during the assessment, where the main complaint was pain at the time of diagnosis, were adjusted to the complaints made.

#### Conclusion

More acute patients must experience acute pain associated with a physical injuring agent. In fact: Acute pain associated physical injuring characterized by the patient complaining of intermittent bloody urine accompanied by pain in the abdomen up to the back, a pain scale 3, pain like stabbing, pain is felt continuously, pain persists when moving, pain decreases at rest, the patient wakes up at night because of pain and difficulty going back to sleep, does not spend 1 portion of food, pulse 79 times/minute, blood pressure 140/78 mmHg. After evaluating the nursing care provided to Mr. R, the final result is that all problems that arise can be resolved on the second day according to the time specified in the action plan, with the result that the patient says he does not feel pain because he is under the influence of the pulse 71 times/minute, pressure 140/78 mmHg. In addition, the



pain response in the patient is quite good. This is because the patient's condition is by the desired criteria.

## **Authors Contributions**

The author carries out tasks from data collection, data analysis, making discussions to making manuscripts.

### **Conflicts of Interest**

There is no conflict of interest.

## Acknowledgment

Thank you to the respondents and to those who have helped in this research.

#### References

- Basuki B Purnomo. (2011). Dasar-dasar Urologi (Cetakan II). CV. Sagung Seto Jakarta.
- Baughman, D. C., & Hackley, J. C. (2000). Keperawatan Medikal- Bedah. EGC.
- Bochenek, K., Aebisher, D., Międzybrodzka, A., Cieślar, G., & Kawczyk-Krupka, A. (2019). Methods for bladder cancer diagnosis-The role of autofluorescence and photodynamic diagnosis. Photodiagnosis and Photodynamic Therapy, 27, 141–148.
- Cadiou, S., Al Tabaa, O., Nguyen, C.-D., Faccin, M., Guillin, R., Revest, M., Guggenbuhl, P., Houvenagel, E., Pertuiset, E., & Coiffier, G. (2019). Back pain following instillations of BCG for superficial bladder cancer is not a reactive complication: review of 30 Mycobacterium bovis BCG vertebral osteomyelitis cases. Clinical Rheumatology, 38(6), 1773-1783.
- Clark, P. E., Agarwal, N., Biagioli, M. C., Eisenberger, M. A., Greenberg, R. E., Herr, H. W., Inman, B. A., Kuban, D. A.,

- Kuzel, T. M., Lele, S. M., Michalski, J., Pagliaro, L. C., Pal, S. K., Patterson, A., Plimack, E. R., Pohar, K. S., Porter, M. P., Richie, J. P., Sexton, W. J., ... Ho, M. (2013). Bladder Cancer. Journal of the National Comprehensive Cancer Network J Natl Compr Canc Netw, 11(4), 446-475. https://doi.org/10.6004/jnccn.2013.0 059
- Gao, J., Tian, D.-W., Zhou, D.-S., & Wu, C.-L. (2021). Flexible cystoscopy can improve anxiety and subjective feelings of bladder cancer patients during follow-up. Videosurgery and Other Miniinvasive Techniques, 16(2), 397-402.
- Grayson, M. (2017). Bladder cancer. Nature, 551(7679), S33-S33. https://doi.org/10.1038/551S33a
- Koch, G. E., Smelser, W. W., & Chang, S. S. (2021). Side effects of intravesical BCG and chemotherapy for bladder cancer: what they are and how to manage them. *Urology*, 149, 11–20.
- Krajewski, W., Mazur, M., Poterek, A., Pastuszak, A., Halska, U., Tukiendorf, A., Rymaszewska, J., & Zdrojowy, R. (2018). Assessment of pain management, acceptance of illness, and adjustment to life with cancer in patients with nonmuscle invasive bladder cancer. BioMed Research International, 2018.
- Kulkarni, G. S., Black, P. C., Sridhar, S. S., Kapoor, A., Zlotta, A. R., Shayegan, B., Rendon, R. A., Chung, P., van der Kwast, T., & Alimohamed, N. (2019). Canadian Urological Association guideline: Muscle-invasive bladder cancer. Canadian Urological Association Journal, 13(8), 230.
- Lenis, A. T., Lec, P. M., Chamie, K., & MSHS, M. D. (2020). Bladder Cancer: A Review. JAMA, 324(19), 1980–1991. https://doi.org/10.1001/jama.2020.1

This is an open access article under the CC BY-SA lisense [Creative Commons Attribution-Share Alike 4.0 International License]





#### 7598

- León-Mata, J., Domínguez, J. L., & Redorta, J. P. (2018). Analysis of tolerance and security of chemo hyperthermia with Mitomycin C for the treatment of nonmuscle invasive bladder cancer. Archivos Espanoles de Urologia, 71(4), 426-437.
- Pangribowol Supriyono, A. B. K. (2019). Beban Kanker. In Kementerian Kesehatan Republik Pusat Data dan Informasi.
- PPNI. (2019a). Standar Diagnosis Keperawatan Indonesia: Definisi dan Indikator Diagnostik (Edisi 1). DPP PPNI.
- PPNI. (2019b). Standar Intervensi Keperawatan Indonesia: Definisi dan Tindakan Keperawatan (Edisi 1). DPP PPNI.
- PPNI. (2019c). Standar Luaran Keperawatan Indonesia: Definisi dan Kriteria Hasil Keperawatan (Edisi 1). DPP PPNI.
- Raharjo, M. (2017). Studi kasus dalam penilitian kualitatif: konsep dan prosedurnya. Sekolah Pascasarjana Universitas Islam Negeri Maulana Malik Ibrahim.
- Raskolnikov, D., Brown, B., Holt, S. K., Ball, A. L., Lotan, Y., Strope, S., Schroeck, F., Ullman, R., Lipman, R., & Smith, A. B. (2019). Reduction of pain during flexible cystoscopy: a systematic review and meta-analysis. The Journal of Urology, 202(6), 1136-1142.
- Saginala, K., Barsouk, A., Aluru, J. S., Rawla, P., Padala, S. A., & Barsouk, A. (2020). Epidemiology of Bladder Cancer. In *Medical Sciences* (Vol. 8, Issue 1). https://doi.org/10.3390/medsci8010 015
- Sanli, O., Dobruch, J., Knowles, M. A., Burger, M., Alemozaffar, M., Nielsen, M. E., & Lotan, Y. (2017). Bladder cancer. *Nature Reviews Disease Primers*, 3(1),

- 17022. https://doi.org/10.1038/nrdp.2017.2
- Silverman, D. T., Koutros, S., Figueroa, J. D., Prokunina-Olsson, L., & Rothman, N. (2017). Bladder Cancer. In Cancer Epidemiology and Prevention (4th ed.). Oxford University Press. https://doi.org/10.1093/oso/978019 0238667.003.0052
- Zupančič, D. (2021). Immunohistochemistry as a paramount tool in research of normal urothelium, bladder cancer and bladder pain syndrome. European Journal of Histochemistry: EJH, 65(2).